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REMARKS

Claims 1-12 and 15-38 are pending in this application after this Amendment. Claims 1-38 are rejected. Claims 13 and 14 have been canceled without prejudice or disclaimer of the subject matter therein. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1, 16 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatfield et al. (U.S. Patent 5,779,641), hereafter Hatfield, in view of Hossack et al. (U.S. Patent 6,116,244), hereafter Hossack. Claims 2-8, 17-21 and 27-34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatfield in view of Hossack and further in view of Baldwin et al. (U.S. Patent 4,827,413), hereafter Baldwin. Claims 9, 10, 22, 23 and 35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatfield in view of Hossack and Baldwin and further in view of Drebin et al. (U.S. Patent 4,835,712). Claims 11, 12, 15, 24 and 36-38 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatfield in view of Hossack and Baldwin and further in view of Vining (U.S. Patent 6,083,162). Claims 13 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatfield in view of Hossack and further in view of Karron et al. (U.S. Patent 5,898,793). Claim 26 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatfield in view of Hossack and further in view of Ramanujam (U.S. Patent 5,570,460). Applicant respectfully traverses these rejections for at least the reasons set forth below.

Applicant has amended independent claims 1, 16 and 25. Specifically, claim 1 has been amended to recite graphics processing circuitry for a medical ultrasound system comprising "a vertex data block storing vertex entries that define rendering shapes, the rendering shapes including a series of triangles that form a triangle strip." Neither Hatfield or Hossack teach using rendering shapes that include a series of triangles that form a triangle strip. Moreover, the Office cites Karron et. al (U.S. Patent 5,898,793), hereafter Karron, to support a teaching of rendering shapes that are triangles. However, none of the cited prior art, including Karron, teaches forming a triangle strip from a series of triangles (e.g., as shown in Figure 5 of the application as filed). The difference is substantial. For example, the triangle strip recited in claim 1 gives the

appearance of an arc-shaped sector image for a scan plane (see, e.g., paragraphs 0035 and 0036 of the specification as filed) unlike the grid formed by the system of Karron. Thus, Applicant submits that claim 1 is allowable over the cited prior art.

Claim 16, as amended, recites a medical ultrasound imaging system wherein “the signal processor stores image data entries for at least one ultrasound beam in a data block in the graphics memory, stores vertex entries that define blending shapes in a vertex data block in the graphics memory, and initiates rendering of the volume according to a plurality of rendering planes defined by one of a plurality of sets of rendering geometries.” Applicant respectfully submits that the cited prior art fails to teach such a medical ultrasound imaging system. Specifically, Applicant submits that the cited prior art fails to teach at least initiating rendering of a volume according to a plurality of rendering planes defined by one of a *plurality of sets of rendering geometries*. For example, each of the sets of rendering geometries may define rendering planes at a given depth or curved surface. Applicant submits that the cited prior art does not teach the use of different rendering geometries that can define different rendering planes. Thus, Applicant submits that claim 16 is allowable over the cited prior art.

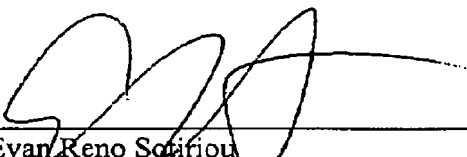
Claim 25, as amended, recites a method for rendering a volume in a medical ultrasound imaging system comprising “initiating volume rendering of the dataset by a graphics processing unit by blending the rendering planes to form a first volume rendering from a first viewing direction and a second volume rendering from a second viewing direction, the first and second viewing directions defining a stereoscopic volume rendering.” Applicant respectfully submits that the cited prior art fails to teach such a method. Specifically, Applicant submits that the cited prior art fails to teach any system where different views are formed to define a stereoscopic volume rendering. Accordingly, the first and second volume renderings may be displayed such that the volume is viewed through stereoscopic or three dimensional viewing glasses. Thus, Applicant submits that claim 25 is allowable over the cited prior art.

The additional prior art relied on in connection with Hatfield and Hossack to reject the dependent claims simply does not make up for the deficiencies in these references. Accordingly, dependent claims 2-12, 15, 17-24 and 26-38 are likewise patentable over the cited art based at

least on the dependency of these claims from an independent claim, each of which is submitted to be allowable over the prior art.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art neither anticipates nor renders obvious the claimed invention and the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,



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